STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES OFFICE OF CONSERVATION AND COASTAL LANDS

Honolulu, Hawaii

REF:OCCL:DH

CDUA MA-3492

Acceptance Date: December 11, 2008 180-Day Exp. Date: June 9, 2009

May 8, 2009

Board of Land and Natural Resources State of Hawaii Honolulu, Hawaii

REGARDING:

Conservation District Use Application (CDUA) MA-3492

Kapunakea Preserve Fence Project

APPLICANT:

Mark White, The Nature Conservancy (TNC), 81 Makawao

Avenue, Suite 203A, Pukalani, Hawaii 96768, Phone 808-856-

7664

LANDOWNER:

Kaanapali Land Management Corp., 275 Lahainaluna Road,

Lahaina, Hawaii, 96761, Phone 808-661-9652

LOCATION:

Lahaina, Island of Maui

TMK's:

(2) 4-4-007:001, 003, 007, and 008

PARCEL AREA:

TMK: (2) 4-4-007:001 is 1,014.6 acres

TMK: (2) 4-4-007:003 is 74.0 acres TMK: (2) 4-4-007:007 is 175 acres

TMK: (2) 4-4-007:008 is approximately .21 acres

SUBZONE:

TMK: (2) 4-4-007:001 Protective and Limited

TMK: (2) 4-4-007:003 Resource TMK: (2) 4-4-007:007 Protective TMK: (2) 4-4-007:008 Resource

DESCRIPTION OF AREA / CURRENT USE:

The 1,264-acre Kapunakea Preserve project is located adjacent to Puu Kukui and Honokowai Natural Area Reserves (NAR). Kapunakea preserve is included in the West Maui Mountains Watershed Partnership (WMMWP); an area of 50,000 acres of contiguous, managed watershed. Kapunakea preserve is bounded on the west (lowland) side by private agricultural lands. Dirt roads provide partial access to parts of the preserve. The subject

parcels lie in the State Land Use (SLU) Conservation District: 1,014.6 acre TMK: (2) 4-4-007:001 Protective and Limited subzones; 74.0 acre TMK: (2) 4-4-007:003 Resource subzone; 175 acre TMK: (2) 4-4-007:007 Protective subzone; .21 acre TMK: (2) 4-4-007:008 Resource subzone (Exhibits 1, 2 & 3).

Contemporary Cultural Resources and Practices, Historic Sites

Neither archeological and historical resources nor Native Hawaiian rights will be adversely affected by the proposed project.

Natural Environment

Kapunakea Preserve encompasses portions of three traditional Hawaiian ahupuaa - Honokowai, Hanakaoo, and Kapunakea.

Kapunakea Preserve contains 11 native-dominated natural communities: 1) Lowland: Koa/Ohia (Acacia/Metrosideros) Lowland Mesic Forest, Lama/Ohia (Diospyros/Metrosideros) Lowland Mesic Forest, Mamaki (Pipturus) Lowland Wet Shrubland, Ohia (Metrosideros) Lowland Mesic Forest, Ohia (Metrosideros) Lowland Mesic Shrubland, Ohia/Uluhe (Metrosideros/Dicranopteris) Lowland Wet Forest, Uluhe (Dicranopteris) Lowland Wet Shrubland; 2) Montane: Ohia (Metrosideros) Mixed Montane Bog, Ohia (Metrosideros)/Mixed Shrub Montane Wet Forest, Ohia /Olapa (Metrosideros/Cheirodendron) Montane Wet Forest; and 3) Aquatic (Hawaiian Intermittent Stream).

Kapunakea protects at least 34 rare plants: Acacia koaia (koa'oha), Alectryon macrococcus var. micrococcus ('ala'alahuam mahoe), Alphitonia ponderosa (kauila, kauwila, oa), Argyroxiphium caliginis (eke silversword), Bobea sandwicensis, Bonamia menziesii, Calamagrostis expansa, Chamaesyce arnottiana var. integrifolia, Chamaesyce olowaluana ('akoko), Clermontia oblongifolia sbsp. Mauiensis ('oha), Colubrina oppositifolia (kauila), Ctenitis squamigera (pauoa), Cyanea glabra, Cyanea lobata subsp. lobata, Cyrtandra filipes, Cyrtandra munroi, Eurya sandwicensis (anini, wanini), Exocarpos gaudichaudii (heau), Geranium hillebrandii (nohoanu, hinahina), Hibiscus kokia ssp. Kokio (koki'o 'ula'ula), Kadua (formerly Hedyotis) Formosa, Keysseria (formerly Lagenifera maviensis)(howaiaulu), Liparis hawaiensis (Jewel orchid), Melicope orbicularis (alani), Myrsine vaccinioides (kolea), Neraudia melastomifolia (ma'aloa, ma'aloa, 'oloa), Nothocestrum latifolium ('aiea), Phyllostegia bracteata, Phyllostegia stachyoides, Platanthera holochila, Ranunculus mauiensis (makou), Santalum freycinetianum var. freycintianum ('iliahi, sandalwood).

Four native forest birds can be found: 'apapane; I'iwi; 'amakihi; and pueo. 'Ua'u (Hawaiian Dark-Rumped Petrel) within the preserve have been heard there. Populations of four species of rare Hawaiian tree snails have been documented at Kapunakea: Partulina perdix, P. tappaniana, P. crocea, and Perdicella kuhnsi.

The terrain at Kapunakea is rugged, remote and forested. Soils consist of Rock Outcrop, Rough Mountain Land, Alaeloa Silty Clay, Rock land, Rough broken and Stony Land, and Stony Alluvial Land.

PROPOSED USE:

Established in 1980, TNC Hawaii has: 1) established approximately 40,000 acres of statewide preserves in Hawaii; 2) is a member of eight watershed partnerships; 3) works closely with public and private partners to preserve one million acres statewide; and 4) is engaged in marine conservation in Hawaii's near shore waters.

TNC is part of the State of Hawaii, Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW), Natural Area Partnership Program (NAPP). The program aids private landowners with: 1) the management of their native ecosystems; 2) who have dedicated the land to conservation. The NAPP provides matching funds (\$2 state to \$1 private).

Staff notes on October 9, 1987, TNC received statewide Conservation District Use Permit (CDUP) SH-2028 for the management of five of TNC's nature preserve systems; Kaluahonu on Kauai, Kamakou on Molokai, Pelekunu on Molokai, Waiamoi on Maui, and Ihiihilauakea on Oahu. Kapunakea Preserve was not included in the statewide CDUP.

In 1992 Pioneer Mill Company Limited granted TNC a perpetual conservation easement of 1,264 acres to create Kapunakea Preserve. DOFAW then approved Kapunakea for NAPP funding on January 10, 1992. TNC noted in a memo, dated February 11, 1992, to DOFAW that CDUP SH-2028 would be amended to add Kapunakea Preserve; the action never occurred. Meanwhile DOFAW has sought NAPP funding for Kapunakea Preserve since 1992 from the BLNR (April 25, 1997, April 25, 2003). Currently, TNC is seeking reauthorization of NAPP funding for the next 6-year period. It appeared that CDUP SH-2028 was never amended to include Kapunakea Preserve. As such, the BLNR should also approve any past land use improvements made at Kapunakea Preserve (8 x 8 foot remote field shelter, fencing at 4200 foot elevation) with the submittal of this CDUA.

TNC proposes to protect Kapunakea preserve through: 1) feral ungulate control (construction of fences, surveying, trapping, snaring, eradication, strategic fencing); 2) weed control (controlling established weeds in intact native communities, re-vegetation, preventing the introduction of alien species through manual/chemical means, releasing biocontrol agents, monitoring); 3) small mammal control (studies, aerial rodenticide); 4) monitoring (monitoring transects, data gathering, aerial scouting); 5) education (educational field trips); 6) research (research, data collection); and 7) maintenance and operations (foot trails, signage, small scale shelters, small storage facilities, operations and landing of helicopters on designated Landing Zones (LZ), and fire suppression programs)(Exhibit 4).

SUMMARY OF COMMENTS:

The Department of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands (OCCL) requested comments from the following agencies regarding the proposed project: Division of Forestry and Wildlife (DOFAW), Historic Preservation Division (HPD), Engineering Division, Maui District Land Office (ODLO), Commission on Water Resource Management (CWRM), Division of Aquatic Resources (DAR), Division of Conservation and Resources Enforcement (DOCARE); Office of Hawaiian Affairs (OHA); Maui County Planning Department, Maui County Councilmembers, Mayor's Office, Lahaina Public Library, Department of Health (DOH), and Office of Environmental Quality Control (OEQC), and U.S. Fish and Wildlife Service (USFWS). The following comments were received:

Division of Forestry and Wildlife

DOFAW endorses the project.

Applicant Response: TNC thanks you for your support.

Division of Aquatic Resources

No comments.

Engineering Division

According to the Flood Insurance (FIRM) the project site is located in Flood Zone C; the National Flood Insurance Program does not have any regulations for development within Zone C.

Applicant Response: TNC notes according to FIRM maps Kapunakea Preserve is located in Flood Zone C, and is not covered under the National Flood Insurance Program. Management actions will not change as a result of the information.

Office of Hawaiian Affairs

OHA is supportive of projects that benefit our beneficiaries and that proposes to have minimal impacts upon implementation. Native Hawaiian access rights to the area are recognized, none of the proposed activities impedes access or cultural activities; some of the lands which this project will impact are ceded lands. OHA appreciates that the applicant has broadened public outreach in response generated from the proposal. OHA asks additionally that TNC contact with local groups in the community as much as possible in accomplishing their project objectives and goals.

Applicant Response: TNC appreciates the acknowledgement regarding access rights for Native Hawaiians, cultural activities, and ceded lands. TNC also notes the encouragement to contract with local community groups in accomplishing management objectives at Kapunakea Preserve.

Department of Health

DOH routed the document to various branches of the Environmental Health Administration; there are no comments. DOH recommends that TNC review all of the

standard comments on the website; any comments specifically applicable to the project should be adhered to.

Applicant Response: TNC will review the Standard Comments on the website that you reference.

ANALYSIS:

Following review and acceptance for processing, the applicant was notified by letter, dated December 12, 2008 that:

- 1. The proposed use is an identified land use, pursuant to P-7, SANCTUARIES, D-1, "Plant and wildlife sanctuaries, natural area reserves (see Chapter 195, Hawaii Revised Statutes HRS) and wilderness and scenic areas, including habitat improvements under an approved Management Plan;" please be advised, however, that this finding does not constitute approval of the proposal;
- 2. Pursuant to Section 13-5-40(a), HAR, a public hearing will be required; and
- 3. In conformance with Chapter 343, (HRS), as amended, and Chapter 11-200, HAR, a finding of no significant impact (FONSI) to the environment is anticipated for the proposed project. The draft environmental assessment (DEA) for the project will be submitted to OEQC to be published in the December 23, 2008 Environmental Notice.

The Final Environmental Assessment (FEA) was published in the Environmental Notice on February 23, 2009.

PUBLIC HEARING:

A Public Hearing was held on Tuesday, January 13, 2009, Wailuku Community Center, 395 Waena Place, Wailuku, Island of Maui, regarding the proposed project. Ten participants attended and six voiced approved of the project.

13-5-30 CRITERIA:

The following discussion evaluates the merits of the proposed land use by applying the criteria established in Section 13-5-30 HAR.

1) The proposed use is consistent with the purpose of the Conservation District.

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.

Staff is of the opinion that the proposed project actions by TNC will deter negative impacts that occur due to feral ungulates and the invasion of invasive weeds. TNC proposes to minimize these impacts with re-vegetation efforts, fencing, surveying, trapping, snaring, eradication, research, education, data collection, and maintenance and operations activities in specific areas of Kapunakea preserve. The area's natural resources and adjacent lands will be greatly preserved and potential impacts will be minimized, with mitigation measures.

2) The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur.

The objective of the Protective subzone is to protect valuable resources in designated areas such as restricted water-sheds, marine, plant, and wildlife sanctuaries, significant historic, archeological, geological, and volcanological features and sites, and other designated unique areas. The objective of the Limited subzone is to limit uses where natural conditions suggest constraints on human activities. The objective of the Resource Subzone is to develop, with proper management, areas to ensure sustained use of the natural resources of those areas.

Staff notes that proposed project is an identified land use in the Protective, Limited, and Resource subzones. Staff notes the proposed project will continue to protect the natural resources of Kapunakea and will also implement activities to further continue research and education.

3) The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable.

The proposed project is not located in the Special Management Area (SMA).

4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.

Staff notes there will be positive impacts to the environment due to the proposed project. Staff is of the opinion that impacts have been adequately mitigated, therefore the proposed project will not have any adverse impact to existing natural resources within the surrounding area, community or region.

5) The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

Staff is of the opinion the proposed land uses (construction and repair of fences, trapping, snaring, controlling established weeds in intact native communities, revegetation, preventing the introduction through manual/chemical means, educational field trips, data collection, foot trails, signage, small scale shelters, small storage facilities) will fit into the locality and surrounding areas, with

appropriate mitigation measures and without significant or deleterious effects to the locality, surrounding area and parcels

6) The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.

The applicant has taken the appropriate steps to mitigate any potential impacts, and to maximize and enhance the natural beauty and open space characteristics of the subject parcel. The proposed project is intended to blend in visually with the surrounding area.

7) Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.

The proposed project does not involve subdivision of Conservation District land.

8) The proposed land use will not be materially detrimental to the public health, safety and welfare.

The proposed action will not be materially detrimental to the public health, safety and welfare.

DISCUSSION:

The proposed use is an identified land use in the Protective subzone of the Conservation District, according to Section 13-5-22, Hawaii Administrative Rules (HAR), P-7, SANCTUARIES, D-1, "Plant and wildlife sanctuaries, natural area reserves (see Chapter 195, Hawaii Revised Statutes (HRS), and wilderness and scenic areas, including habitat improvements under an approved Management Plan." The management plan is attached as **Exhibit 4.**

Staff notes the proposed project will have positive impacts by benefiting native flora and fauna species, and the watersheds located in the project area and on adjacent lands. Ungulate control will protect rare plants and natural communities from the spread of nonnative weeds. Active weed control in the project areas will help protect existing rare plants and natural communities, which indirectly impact native animals. Active management of Kapunakea Preserve will promote a more stable water regime by reducing the potential for rapid runoff from disturbed or degraded areas.

Staff notes the negative impacts are minimal and short term and TNC has proposed adequate mitigation measures to reduce potential negative impacts to the environment. Staff notes negative impacts will be minimized with Best Management Practices as well as protocols enacted by TNC. Biosanitation protocols will be used for weed control and management operations. Herbicide contamination risk is low: 1) only small volumes of approved herbicides will be used; 2) staff have been trained in herbicidal application, and

3) all chemical use is in full compliance with and all weed control staff are certified by the State of Hawai'i Department of Agriculture (HDOA) Pesticide Enforcement Division.

Staff notes TNC has proposed several land uses (construction of fences, trapping, snaring, re-vegetation, data collection, foot trails, signage, small scale shelters, small storage facilities, and helicopter land zones). Staff notes currently TNC has provided the rationale for the land uses however the ideas are conceptual. Staff notes that TNC will need to submit prior to construction detailed drawings or site plans for the proposed land uses in the future.

TNC notes funding is a key for proposed project and asked that the construction deadline be extended. The project is likely to be implemented over a much longer period of time than three years (Exhibit 5).

However, staff is amendable deleting condition that states, "any work done on the land shall be initiated within one (1) year of the approval of such use, and unless otherwise authorized be completed within three (3) years of the approval. The applicant shall notify the Department in writing when construction activity is initiated and when it is completed."

Staff recommends to the BLNR that past land use improvements made at Kapunakea Preserve (8 x 8 foot remote field shelter, fencing at 4200 foot elevation) are approved with the submittal of this CDUA.

Staff therefore recommends;

RECOMMENDATION:

Based on the proceeding analysis, staff recommends that the Board of Land and Natural Resources (Board) APPROVE CDUA MA-3492 for The Nature Conservancy's Kapunakea Preserve Project, subject to the following terms and conditions:

- 1) The applicant shall comply with all applicable statutes, ordinances, rules, regulations, and conditions of the Federal, State and County governments;
- 2) The applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
- 3) Before proceeding with any work authorized by the Board, the applicant shall submit four (4) copies of the construction and grading plans and specifications to the Chairperson or his authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three (3) of the copies will be returned to the applicant. Plan

approval by the Chairperson does not constitute approval required from other agencies;

- 4) That past land use improvements made at Kapunakea Preserve (8 x 8 foot remote field shelter, fencing at 4200 foot elevation) are approved;
- The applicant shall comply with all applicable Department of Health administrative rules. Particular attention should be paid to Hawaii Administrative Rules (HAR), Section 11-60.1-33, "Fugitive Dust" and to Chapter 11-46, "Community Noise Control," and Chapter 11-54 National Pollutant Discharge Elimination System;
- In issuing this permit, the Department has relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;
- 7) The applicant acknowledges that the approved work shall not hamper, impede or otherwise limit the exercise of traditional, customary or religious practices in the immediate area, to the extent such practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;
- 8) Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact HPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary.
- 9) Other terms and conditions as may be prescribed by the Chairperson; and
- Failure to comply with any of these conditions shall render this Conservation District Use Permit null and void.

Respectfully submitted,

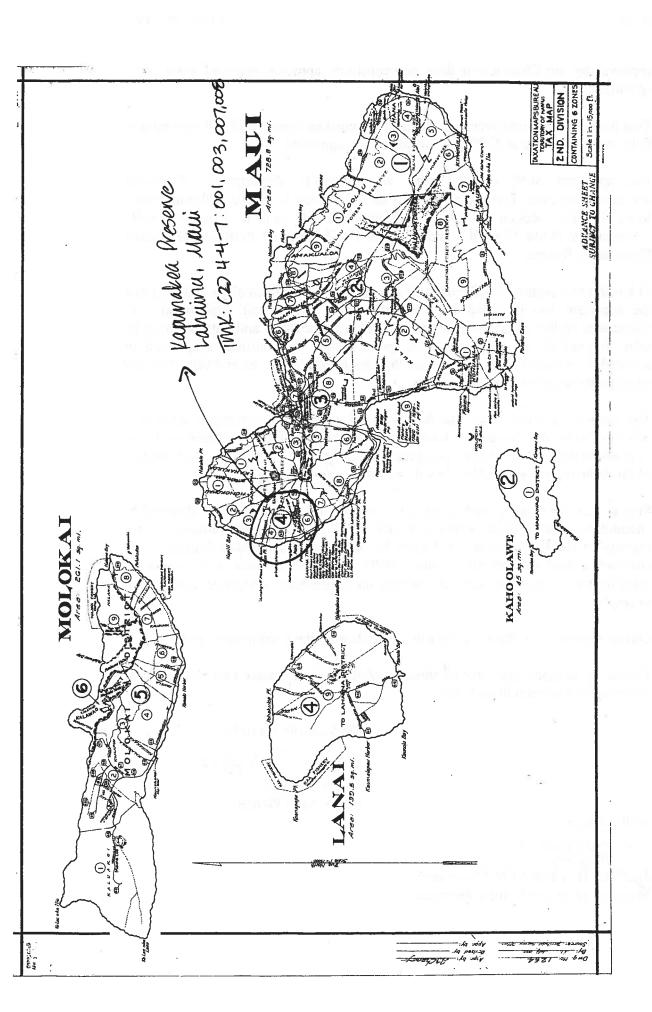
Dawn T. Hegger Senior Staff Planner

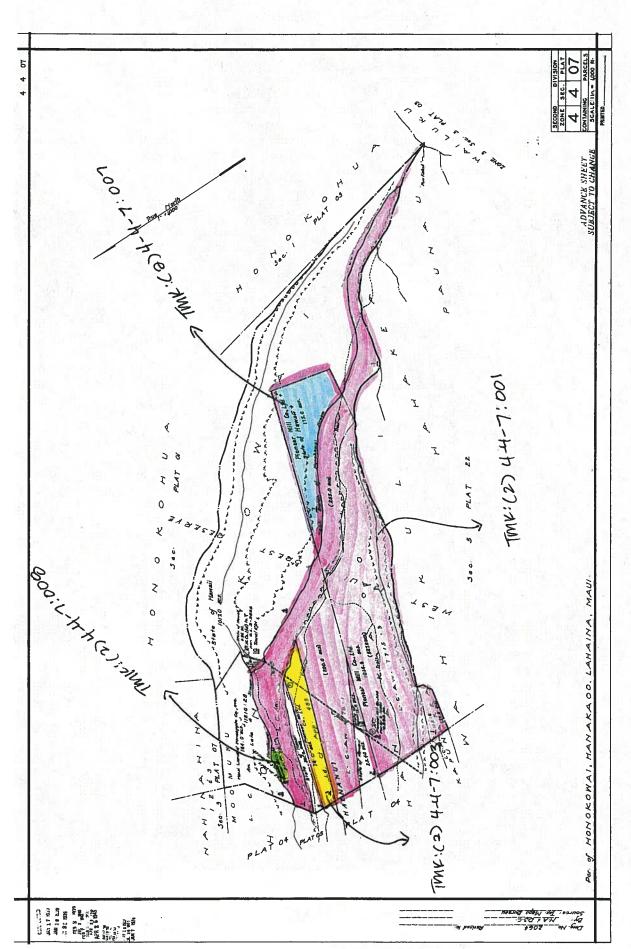
Approved for Submittal:

By:

LAURA H. THIELEN, Chairperson

Board of Land and Natural Resources





(MK: (2) 44-7: 001,003,007,008 Kapunakea Preserve



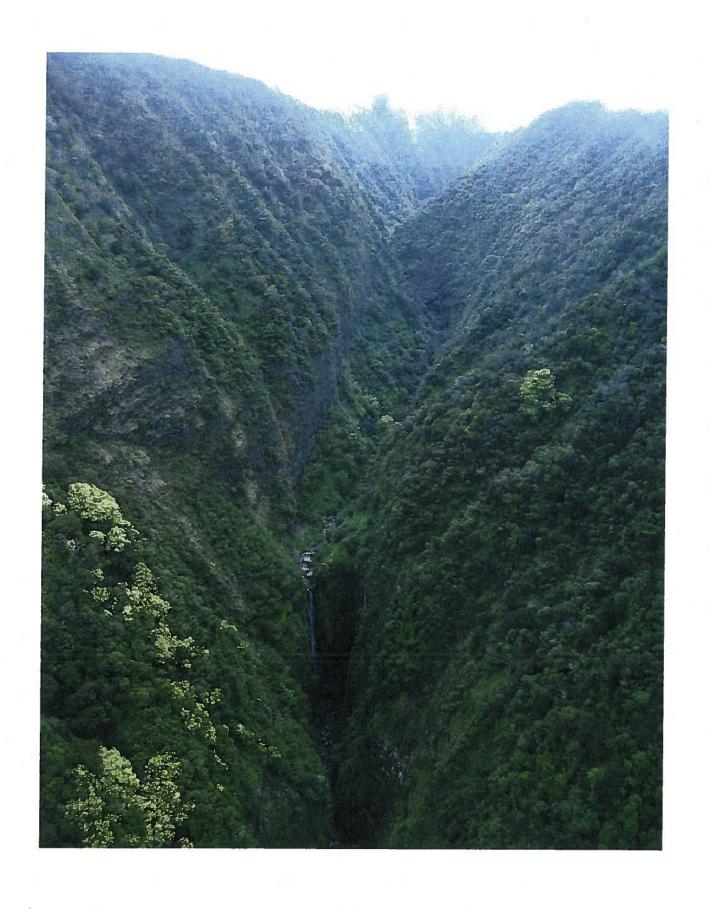


EXHIBIT & Pidure of Kapunakea Preserve

> replaced bower houndary leaves (1992) Kapunakea Preserve Topography and Infrastructure Unimproved Road Remote Field Shelter Kapunakea Landing Zones Kapunakea 175 Management 100008

Paut land were at Kapunakea Preserve



Kapunakea Management Units

750

1,500

3,000 Meters

of 'Ohi'a Lowland Wet Forest and Uluhe (Dicranopteris linearis) Lowland Wet Shrubland. Prior to our management efforts, this unit showed high levels of pig activity. Activity has been significantly reduced by control measures that must be maintained to keep activity low. Unit 1 consists of the lowland (up to 3,000 feet elevation) portion of the preserve that is closest to Kapāloa Stream. It is primarily comprised

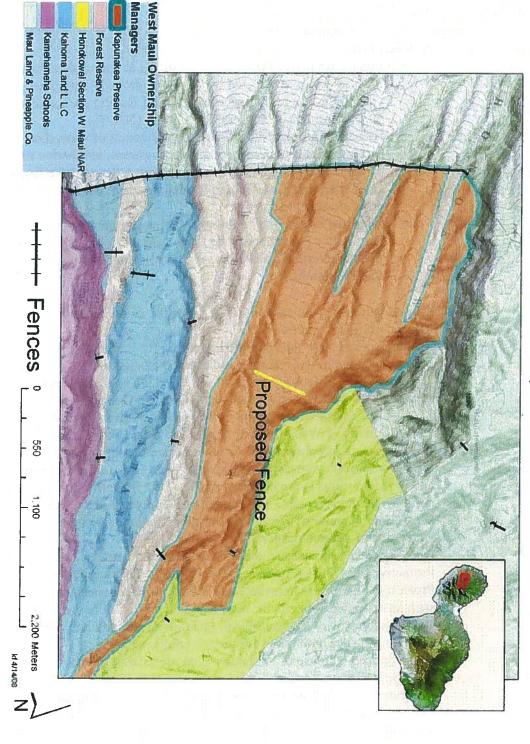
substantially. units, rather than eliminate them from Unit 2. Pig activity, although high during the initial phases of ungulate control, has been reduced the gulch bottoms. Because Tibouchina and strawberry guava are prevalent throughout the unit, we aim to prevent their spread into other Unit 2 encompasses the remainder of the preserve's lowland elevations. It contains five native communities, and non-native vegetation in

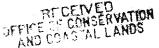
mile strategic fence at 3,000 ft. elevation and construct if needed (Unit 3 lower boundary). management focus in this unit is to eliminate ungulates and control weed invasions. In 2010 - 2011, TNC will determine the need for a 3/4 occurs along the streambed. The Uluhe- and 'Ohi'a-dominated communities are intact above 3,400 feet, with minimal weed problems. Our boundary. The four montane communities in Unit 3 are dominated by Uluhe or 'Ohi'a; Māmaki (Pipturus albidus) Lowland Wet Shrubland Unit 3 comprises the majority of the preserve's mid-elevations (3,000 - 4,000 feet) and follows Kapāloa Stream along its northeast

Unit 4 begins on the east side of Kapāloa Stream, and continues to the preserve's eastern boundary. The upper elevations in this unit must be reached by helicopter, due to the steep gulch walls. Management focuses on preventing new invasions.

elevations down to avoid transport of weeds that occur in lower elevations. to remove threats from this area before they damage the rare 'Ōhi'a bogs. Access is by helicopter only. Travel is conducted from the upper monitoring results have shown that this area contains only a few scattered alien plants (including Tibouchina). The management priority is Unit 5, encompassing the highest elevations of the preserve, is Kapunakea's most pristine unit. Initial survey data and more recent

Kapunakea Preserve & Adjacent Fence Locations





Kapunakea Preserve CDUP Management Plan

2000 DEC 18 A 8: 39

- 1. General Description
 - Proposed land use in general terms
 - o P-7 Sanctuary

DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII Long-term native habitat improvements at Kapunakea Preserve on West Maui as directed by BLNR-approved contiguous sixyear Long-Range Management Plans (LRMPs) generated by

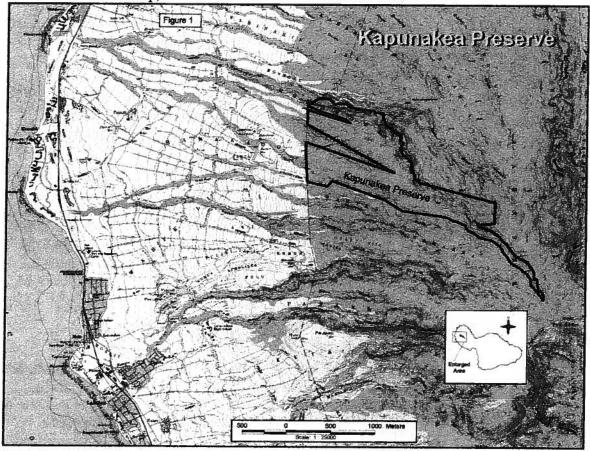
Habitat improvements include the protection of watershed, native plants and animals, native ecosystems, and native forest by controlling ungulates, weeds, and other threats (like fire and small mammals), and where needed, to construct new fences to prevent ungulate damage.

the Natural Areas Partnership Program (NAPP).

Proposed biodiversity conservation management actions for Kapunakea Preserve include Feral Animal Control, Invasive Weed Control, Small Mammal Control, Education, Research, and Operations.

- How proposed land use is consistent with the purpose of the conservation district and the property's subzone
 - o Kapunakea Preserve falls completely within the conservation district and consists mainly of resource and protective subzones.
 - The goal of the proposed Sanctuary land use at Kapunakea Preserve is to protect watershed, native plants and animals. Our proposed biodiversity conservation management actions include Feral Animal Control, Invasive Weed Control, Small Mammal Control, Education, Research, and Operations. These management actions directly serve the purpose of the conservation district, which is to conserve, protect, and preserve important natural resources of the State through appropriate management. Enrollment of Kapunakea Preserve in the West Maui Mountains Watershed Partnership demonstrates its watershed protection purpose.
 - Our proposed Sanctuary land use is an identified land use (P-7) for the Protective Subzone as stated in HAR 13-5-22. The purpose of the Protective Subzone is to protect valuable resources in designated areas such as restricted watersheds, marine, plant, and wildlife sanctuaries, significant historic, archaeological, geological, and volcanological features and sites, and other designated unique areas.
 - Our proposed land use of Sanctuary is an identified land use (P-7) that also applies to the Resource Subzone as stated in HAR 13-5-24(a). The purpose of the Resource Subzone is to develop, with proper management, areas to ensure sustained use of the natural resources of those areas.

· Location map, drawn to scale



2. Existing conditions on parcel

- Ownership
 - o Ka'anapali Land Management Corp.
 - O Kapunakea Preserve was established in 1992 when Pioneer Mill Company, Limited, granted The Nature Conservancy (TNC) a perpetual conservation easement over 1,264 acres on West Maui. The successor in interest to Pioneer Mill Company, Limited, is Ka'anapali Land Management Corp. The conservation easement seeks to preserve and protect the natural, ecological and wildlife features of the property.

Resources

Kapunakea contains 11 native-dominated natural communities, ranging from lowland shrublands to montane forests and bogs. Four of the communities are not found in the nearby West Maui NAR, most notably Koa/'ohi'a (Acacia koa/Metrosideros polymorpha) Lowland Mesic Forest and Lama/'ōhi'a (Diospyros sandwicensis/Metrosideros polymorpha) Lowland Mesic Forest. These natural communities are:

Lowland:

- Koa/'Ōhi'a (Acacia/Metrosideros) Lowland Mesic Forest
- Lama/'Ōhi'a (Diospyros/Metrosideros) Lowland Mesic Forest
- Mamaki (Pipturus) Lowland Wet Shrubland
- 'Ōhi'a (Metrosideros) Lowland Mesic Forest
- 'Ōhi'a (Metrosideros) Lowland Mesic Shrubland
- 'Ōhi'a/Uluhe (Metrosideros/Dicranopteris) Lowland Wet Forest
- Uluhe (Dicranopteris) Lowland Wet Shrubland
- Montane:
 - 'Ōhi'a (Metrosideros) Mixed Montane Bog
 - 'Öhi'a (Metrosideros)/Mixed Shrub Montane Wet Forest
 - 'Ōhi'a /'Olapa (Metrosideros/Cheirodendron) Montane Wet Forest
- Aquatic:
 - Hawaiian Intermittent Stream

• Presence of threatened or endangered species

- Kapunakea protects at least 34 rare plants. At least eight of Kapunakea's rare plants have not been seen in the adjacent NAR. The rare plants found in the preserve include:
- Acacia koaia (koai'a, koai'e, koa'oha)
- Alectryon macrococcus var. micrococcus ('ala'alahua, mahoe)
- Alphitonia ponderosa (kauila, kauwila, oa)
- Argyroxiphium caliginis ('eke silversword)
- Bobea sandwicensis ('ahakea)
- Bonamia menziesii
- Calamagrostis expansa
- Chamaesyce arnottiana var. integrifolia
- Chamaesyce olowaluana (akoko)
- Clermontia oblongifolia sbsp. Mauiensis ('oha)
- Colubrina oppositifolia (kauila)
- Ctenitis squamigera (pauoa)
- Cyanea glabra
- Cyanea lobata subsp. lobata
- Cyrtandra filipes
- Cyrtandra munroi
- Eurya sandwicensis (anini, wanini)
- Exocarpos gaudichaudii (Heau)
- Geranium hillebrandii (formerly humile) (Nohoanu, hinahina)

- Hibiscus kokio ssp. Kokio (koki'o 'ula'ula)
- Kadua (formerly Hedyotis) formosa
- Keysseria (formerly Lagenifera) maviensis (hōwaiaulu)
- Liparis hawaiensis (Jewel orchid)
- Melicope orbicularis (alani)
- Myrsine vaccinioides (kolea)
- Neraudia melastomifolia (ma'aloa, ma'aloa, 'oloa)
- Nothocestrum latifolium ('aiea)
- Phyllostegia bracteata
- Phyllostegia stachyoides
- Platanthera holochila
- I tatammera notocnita
- Ranunculus mauiensis (makou)
- Santalum freycinetianum var. freycinatianum ('iliahi, sandalwood)
- Sicyos cucumerinus ('anunu, kūpala)
- Strongylodon ruber

- Four native forest birds are found in Kapunakea: 'apapane, 'i'iwi, 'amakihi, and pueo.
- o 'Ua'u (Hawaiian Dark-Rumped Petrel) have also been heard there.
- o Populations of four species of rare Hawaiian tree snails have been documented at Kapunakea: Partulina perdix, P. tappaniana, P. crocea, and Perdicella kuhnsi. These snails probably were once widespread and abundant on Maui, but in many areas their numbers have declined precipitously in this century due to habitat destruction, collection, and the depredation by introduced animals.
- o A number of other snails also occur at Kapunakea, including tornatellinines and species of Auriculella, Succinea, and Philonesia.
- Constraints (e.g. flood plain, tsunami, volcanic, topography)
 - Kapunakea is remote and rugged. Management of remote areas will require the occasional use of helicopters for access.
 - The preserve is bounded on the west (lowland) side by private agricultural lands.
 - Kapunakea Preserve is adjacent to two areas that are also managed to protect natural resources: Pu'u Kukui WMA (privately owned) and the Honokōwai section of the state West Maui NAR.
 - Most of the area is not in a flood plain.
 - o Topography is rugged, forested, and remote.

• Existing land uses

- Existing land uses are strictly conservation as described above. There is one stream diversion and several water collections tunnels in the bottom of Honokōwai stream that are maintained by the landowner. These were built in the early 1900's and there are no current plans for modification. Any future changes to these structures would be pursued under a separate permit.
- On April 25, 1997 a DOFAW-administered Conservation District Use Permit
 was issued to us for conservation management actions (i.e., existing land uses).
 However OCCL and DOFAW have recently asked us to apply for another
 CDUP.
- Existing Conservation District Use Permits (CDUPs)
 - On April 25, 1997 a DOFAW-administered Conservation District Use Permit was issued to us. We also completed EAs in 1995 and 1997. However OCCL and DOFAW have recently asked us to apply for another CDUP. A determination was made by the County of Maui in October 2008 via email that the area is not in the SMA.

Access

- Dirt roads provide some access and helicopters are used to access most remote parts of the preserve.
- With much adjacent agricultural activity (e.g., large, heavily-loaded trucks, and agricultural), public access is limited, and we carefully coordinate our

management activities with work in adjacent agricultural areas (see access map on CDUP page 14).

Soils

According to the U.S. Department of Agriculture Soil Survey of Islands of Kauai, Oahu, Moloka'i, and Lāna'i, State of Hawaii (1972), Kapunakea Preserve is comprised of two predominant soil types and five lesser soil types: rRO and rRT are predominate soil types situated throughout the interior mauka portions of the Kapunakea with five less oil types know to be nearby AeE, OFC, rRK, rRS, and rSM, typically located along the makai areas. The general description respectively of these types above are Rock Outcrop, Rough Mountain Land, Alaeloa Silty Clay, Rock land, Rough broken and Stony Land, and Stony Alluvial Land.

3. Proposed land uses on parcel

Description of proposed land use

The following Sanctuary land use habitat improvements are being proposed for Kapunakea Preserve: Feral Animal Control, Invasive Weed Control, Small Mammal Control, Monitoring, Education, Research and Operations. These land uses are summarized below and described in fuller detail in our attached Kapunakea Long-Range Management Plan (LRMP) that we submit to DOFAW every six years.

o FERAL ANIMAL CONTROL:

- The elimination of ungulates in Kapunakea Preserve and on adjacent partnership lands continues to be the primary management objective. Ungulate damage has been substantially reduced since 1995, especially in upper elevation areas. The proposed use is consistent with the management activities regularly carried out since 1993 with no substantial modifications. While the majority of efforts are focused on feral pigs, in the past few years, axis deer (Axis axis) have greatly expanded their range on Maui to include West Maui areas near Ukumehame, Kapalua, and Kahakuloa. Control efforts for axis deer may be needed in the near future to protect the preserve.
- Preserve staff, volunteers under staff supervision and/or contractors will implement an ungulate control program, utilizing a variety of best practices to bring pig populations down to zero as rapidly as possible and prevent them from re-establishing. Examples of these practices include construction of fences to aid in control efforts, staff and contract animal control with dogs, surveying, trapping and snaring.
- Figure 3 of the Kapunakea Long-range Management Plan and EA depicts current and proposed fences in Kapunakea Preserve and on adjacent lands. The Forest Reserve boundary fence along the lower boundary of the preserve was replaced in several phases between FY1993 and FY1995. Maintenance of this fence is key to preventing ungulate ingress into the Preserve; as such ongoing maintenance and possible additions to this lower boundary fence will be necessary. What

> we mean by additions is the need to extend wings and short sections of fence to improve barriers along topographic features. Over time, staff find weaknesses in fences and they need to be closed. Short strategic fences may be constructed as ungulate ingress points or existing fence barrier weaknesses are identified. For example, we may need to add fencing along the boundary separating Unit 3 above from Units 1 and 2 below (see site plans below). If ungulates continue to persist in lower elevation areas, this 2,000' fence at the 3,200 foot contour would be instrumental in keeping ungulates out of more pristine, higher elevation areas. Any new fence routes will be thoroughly surveyed for archeological and biological resources prior to any work (see Cultural Impact Assessment in appendix 5 of the Draft EA for probability of archeological sites). Fences will be built to typical remote area specifications, generally 48" high with a minimal clearing only in a 5 to 8 foot band along the fence line. Great care will be taken to minimize any impacts to resources. Dozens of similar fences have been built in other natural areas on West Maui to protect against pig incursion.

- The Nature Conservancy spent significant resources (100% private funds) to test the viability of contract animal control at Kapunakea during 2008. Although improvements were made to the program and will continue to be made, we concluded that snaring is still the most effective and feasible technique for controlling pigs in areas too remote, rugged, and/or fragile for frequent access, and where on the ground control cannot detect and remove low-density pig populations from sensitive sites. Until an effective alternative can be found, snares will continue to be strategically placed in pig-vulnerable areas. Groups of snares are conspicuously marked in the field.
- TNCH, at its own expense, contracted a professional animal control company to conduct intensive ungulate removal in Kapunakea in FY 2008. These contract hunters successfully removed 16 pigs at Kapunakea this past year and identified several potential ingress areas through the lower boundary fence. TNCH will continue to pursue opportunities for contract work as opportunities arise. As needed, we will employ other control techniques as they become available and feasible for preserve management. An example of other techniques is trapping, particularly adjacent to the lower boundary fence to reduce ungulate pressure to upper areas.
- As a part of our routine management program, we will continue to survey for axis deer and goats on West Maui during routine helicopter operations and assist the WMMWP and neighboring land managers with ungulate control efforts.

WEED CONTROL:

- The most important aspects of our weed control program are to control established weeds in intact native communities, and to prevent the introduction of new species of alien plants. In some cases, when weeds are considered a direct threat to rare plant populations occurring in aliendominant habitat, localized control actions may be taken.
- We will continue to utilize a suite of the best available weed control techniques to remove our highest priority habitat-modifying weeds from high-quality native habitats. These have typically included manual (by pulling or cutting) and chemical (using herbicide) control, or a combination thereof. We will employ other techniques or tools for weed control as they are developed. Our weeding and non-native tree removal activities most likely will not result in significant ground disturbance. We may also conduct revegetation of damaged/weed controlled areas to prevent erosion or weed recolonization. We also will cooperate with DOCARE in marijuana control as needed.
- In specialized cases where feasible (such as *Tibouchina herbacea*, or *Psidium cattleiaum*), we will explore and consider the possibility of release of safe biocontrol agents. Should we employ this method, we would be involved in application and post-release efficacy monitoring.
- We routinely control specific priority weeds along trails, campsites, and landing zones above 3,200 feet elevation, limiting current infestations in otherwise intact forest or shrubland. This also serves to minimize spread of priority weeds to new places during other preserve activities. We will also prevent introduction or spread of problem weeds by monitoring for and controlling new incipient weeds at landing zones, campsites, and upper trails.

o SMALL MAMMAL CONTROL:

We plan to increase our understanding of threats posed by small mammals and reduce their negative impact where possible. In most cases that means continuing to support studies into aerial application of rodenticides and other scientific research into effects of small mammals and their effective control. As new tools such as aerial rodenticide application become more available we may employ these tools within the project area.

o MONITORING:

Following standards implemented in 1993 (Dunn 1992), we have established a system of resource/threat monitoring transects that extend the entire length of the preserve. We will gather data on animal activity and weed presence along the resource/threat monitoring transects. Aerial scouting from a helicopter and ground scouting may also be employed to monitor ungulate presence, absence, and movement. We will also continue to record incidental observations of small mammal (cat, dog and mongoose) sign.

We may employ new passive monitoring technologies such as remote sensing, high resolution aerial photography for weed mapping, and remote motion-sensored photomonitoring for ungulates and traps. Data collection may include incidental ground disturbance, depending on which monitoring tool is employed. Land uses may include leaving cameras and other monitoring and communication gadgets in the field. Other monitoring tools may be employed as they are developed and become available.

o EDUCATION:

To enhance public awareness and support of conservation efforts, staff and volunteers may conduct educational field trips to increase public understanding and support of conservation activities. Signs that comply with the conservation district use guidelines may be erected in the preserve.

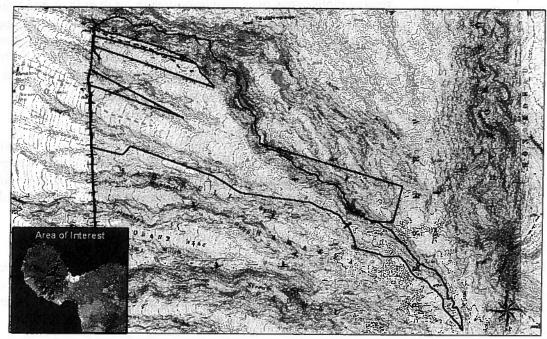
o RESEARCH:

We encourage appropriate scientific research and data collection on areas of the preserve which can support such activities without undue damage to sensitive habitats, to improve techniques for management of Hawaiian natural resources and ecosystems.

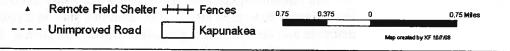
OPERATIONS:

- We will operate equipment and facilities necessary to conduct many of the activities described above. For example, staff and volunteers may maintain and develop management infrastructure such as foot trails, signage, small-scale shelters, and small storage facilities. Operation and landing of helicopters on designated Landing Zones (LZs) will be a necessary component of control programs for non-native species, and for maintenance of safety and fire-suppression programs. New LZs may be created, as necessary. Fire prevention and pre-suppression activities are necessary to prevent loss of native habitat from fires. Fire prevention may include the addition of fire breaks.
- Due to the ongoing nature of our proposed actions, this CDUP is meant to guide actions in the preserve into the future. Construction plans that aren't included here will be submitted to the DLNR chairperson or designated authority for approval prior to construction.

Site plan



Kapunakea Preserve Topography and Infrastructure



• Justification that the actions are an identified land use.

Our proposed biodiversity conservation actions at Kapunakea Preserve fit neatly into the P-7 Sanctuary identified land use category because our actions directly conserve, protect, and preserve important natural resources of the State through appropriate management. Our actions focus on protecting watershed, native plants and animals. These actions include Feral Animal Control, Invasive Weed Control, Small Mammal Control, Education, Research, and Operations. Enrollment of Kapunakea Preserve in the West Maui Mountains Watershed Partnership demonstrates its watershed protection purpose. We are mission-driven as an organization to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

The management actions for protection of watershed, native plants and animals, native ecosystems, native and non-native forest, is consistent with the purpose of the resource and protective subzones of the conservation district as stated in HAR 13-5-11. The purpose of this project is to protect these valuable natural systems by controlling ungulates, weeds, and other threats (like fire and small mammals), and where needed, to construct new fences to prevent ungulate damage.

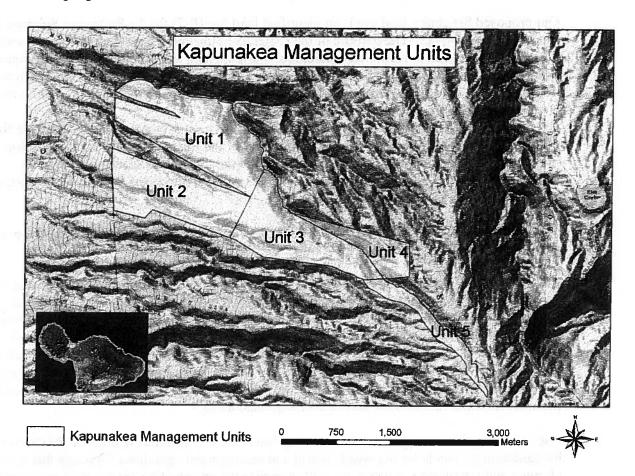
Our proposed Sanctuary land use is an identified land use (P-7) for the Protective Subzone as stated in HAR 13-5-22. The purpose of the Protective Subzone is to protect valuable resources in designated areas such as restricted watersheds, marine, plant, and wildlife sanctuaries, significant historic, archaeological, geological, and volcanological features and sites, and other designated unique areas. Conservation management actions like the ones we propose protect these resources.

Our proposed land use of Sanctuary is an identified land use (P-7) that also applies to the Resource Subzone as stated in HAR 13-5-24(a). The purpose of the Resource Subzone is to develop, with proper management, areas to ensure sustained use of the natural resources of those areas. Conservation management actions like the ones we propose ensure the sustained existence of the natural resources of the Kapunakea area.

This project is not located in a coastal zone; however, improved management of the area will reduce runoff and non-point source pollution.

The proposed activities are expected to benefit native species (including rare plants and animals), native natural communities, and important watershed, both in the project area and on adjacent lands. For example, ungulate control will protect rare plants and rare natural communities from browsing and other types of ungulate damage (including the spread of certain weeds). Active weed control in the project areas will also help protect rare plants and natural communities, and will indirectly help rare and other native animals. Active management of Kapunakea Preserve will also promote a more stable water regime both in and below the project area by reducing the potential for rapid runoff from disturbed or degraded areas.

The risk of significant negative impact is very low. We will continue to enforce the strictest biosanitation protocols for our weed control and management operations. Through this rigorous cleaning and monitoring program, we will minimize the introduction or spread of new weed species by humans. Furthermore, the risk of herbicide contamination is low because 1) only small volumes of approved herbicides are used, 2) staff are well-trained in herbicidal application, and 3) all chemical use is in full compliance with and all weed control staff are certified by the State of Hawai'i Department of Agriculture (HDOA) Pesticide Enforcement Division. All herbicide use is in accordance with the product label and recorded in detail for reference and efficacy monitoring. Compliance with the requirements of the state Department of Agriculture will also minimize the chances of non-target animal poisoning resulting for the use of rodenticides, if used. Kapunakea is managed as five units defined by topographic boundaries, similarity of natural community types, and threats.



Unit 1 consists of the lowland (up to 3,000 feet elevation) portion of the preserve that is closest to Kapāloa Stream. It is primarily comprised of 'Ōhi'a Lowland Wet Forest and Uluhe (*Dicranopteris linearis*) Lowland Wet Shrubland. Prior to our management efforts, this unit showed high levels of pig activity. Activity has been significantly reduced by control measures that must be maintained to keep activity low. This unit will be one of the most intensively managed for ungulates. The lower boundary fence occurs along the lower boundary of this unit. All of the management activities described above (Feral Animal Control, Invasive Weed Control, Small Mammal Control, Monitoring, Education, Research and Operations) will occur in this unit as described in the 6 Year LRMP. This unit is in the Conservation/Protective and Limited Subzone(s, with less than 250 acres in the Conservation/Resource subzone

Unit 2 encompasses the remainder of the preserve's lowland elevations. It contains five native communities, and non-native vegetation in the gulch bottoms. Because *Tibouchina* and strawberry guava are prevalent throughout the unit, we aim to prevent their spread into other units, rather than eliminate them from Unit 2. Pig activity, although high during the initial phases of ungulate control, has been reduced substantially. This unit will be one of the most intensively managed for ungulates. The lower boundary fence occurs along the lower boundary of this unit. All of the management activities described above (Feral Animal Control, Invasive Weed Control, Small Mammal Control, Monitoring, Education, Research and Operations) will occur in this unit as described above and in the 6 Year LRMP. This unit is in the Conservation/Protective and Limited Subzone(s). This unit will also be managed quarterly for ungulates (see LRMP management plan).

Unit 3 comprises the majority of the preserve's mid-elevations (3,000 – 4,000 feet) and follows Kapāloa Stream along its northeast boundary. The four montane communities in Unit 3 are dominated by Uluhe or 'Ōhi'a; Mamaki (*Pipturus albidus*) Lowland Wet Shrubland occurs along the streambed. The Uluhe- and 'Ōhi'a-dominated communities are intact above 3,400 feet, with minimal weed problems. Our management focus in this unit is to eliminate ungulates and control weed invasions. The proposed fence, if needed will be constructed along the lower boundary of Unit 3. This is the separation point between the highest quality native forest and the more disturbed units 1 & 2. All of the management activities described above (Feral Animal Control, Invasive Weed Control, Small Mammal Control, Monitoring, Education, Research and Operations) will occur in this unit as described above and in the 6 Year LRMP. Weed control in particular will occur on along this boundary line. This unit is in the Conservation/Protective and Limited Subzone(s).

Unit 4 begins on the east side of Kapāloa Stream, and continues to the preserve's eastern boundary. The upper elevations in this unit must be reached by helicopter, due to the steep gulch walls. Management focuses on preventing new invasions. All of the management activities described above (Feral Animal Control, Invasive Weed Control, Small Mammal Control, Monitoring, Education, Research and Operations) will occur in this unit as described above and in the 6 Year LRMP. However these activities will be more limited in these areas and only occurring on a biannual basis. This unit is in the Conservation/Protective and Limited Subzone(s).

Unit 5, encompassing the highest elevations of the preserve, is Kapunakea's most pristine unit. Initial survey data and more recent monitoring results have shown that this area contains only a few scattered alien plants (including *Tibouchina*). The management priority is to remove threats from this area before they damage the rare 'Ohi'a bogs. Access is by helicopter only. Travel is conducted from the upper elevations down to avoid transport of weeds that occur in lower elevations. All of the management activities described above (Feral Animal Control, Invasive Weed Control, Small Mammal Control, Monitoring, Education, Research and Operations) will occur in this unit as described above and in the 6 Year LRMP. However these activities will be more limited in these areas and only occurring on a biannual basis. This unit is in the Conservation/Protective and Limited Subzone(s).

Relationship to existing and other proposed land uses

The land uses are consistent with those proposed by the state's Natural Area Reserve system which sits adjacent to the Preserve. The actions proposed at Kapunakea will enhance management on adjacent private nature Preserves like Pu'u Kukui and the Honokowai Natural Area Reserve.

Expected timing

The yea-to-year schedule for habitat improvements are laid out in the contiguous six-year LRMPs. The terms year 1 through year 6 are used in reference to the six-year cycle of the LRMPs. For example, if a fence check is slated for year 2 in the 2010-2015 LRMP, the expected timing of that fence check is fiscal year 2011. Similarly, a fence check slated for year 2 in the 2016-2021 LRMP will occur in fiscal year 2017.

Monitoring strategies

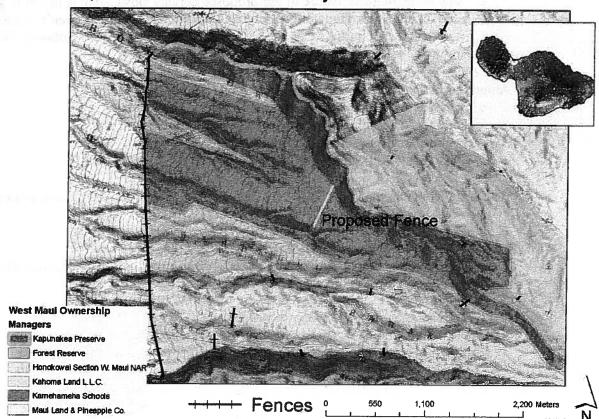
- Following standards implemented in 1993 (Dunn 1992), we have established a system of resource/threat monitoring transects that extend the entire length of the preserve. We will gather data on animal activity and weed presence along the resource/threat monitoring transects. Aerial scouting from a helicopter and ground scouting may also be employed to monitor ungulate presence, absence, and movement. We will also continue to record incidental observations of small mammal (cat, dog and mongoose) sign.
- We may employ new passive monitoring technologies such as remote sensing, high resolution aerial photography for weed mapping, and remote motion-sensored photomonitoring for ungulates and traps. Data collection may include incidental ground disturbance, depending on which monitoring tool is employed. Land uses may include leaving cameras and other monitoring and communication gadgets in the field. Other monitoring tools may be employed as they are developed and become available.

Environmental assessment

See attached Draft EA for Kapunakea Preserve for a detailed environmental assessment of proposed actions.

Site plan showing location of all existing and proposed land uses

Kapunakea Preserve & Adjacent Fence Locations



- Steps to ensure that historic preservation concerns are met
 - This project and proposed land use will not harm or impact native Hawaiian rights and supports historic preservation concerns. This project in essence protects the native plants, animals and natural environment that are critical to Hawaiian culture. Given the sparse historical/traditional use of the lands comprising the Kapunakea Preserve, reflected by a lack of archeological sites, the key mitigation for cultural impacts lie in providing for protection of irreplaceable native species and ecosystems forming the living foundation of Hawaiian culture, and ensuring appropriate and sustainable access to these resource for traditional use. As there is a clear policy and established procedure for traditional Hawaiian access (TNCH 1996), there is no current need for mitigation, aside from maintaining and practicing in accordance with this policy (see Cultural Impact Assessment).

- 4. Reporting schedule
 - Time duration of management plan
 - o Commencement Date: July 1, 2009; Completion Date: Ongoing
 - Due to the ongoing nature of our proposed actions, this CDUP is meant to guide
 actions in the preserve into the future. Construction plans that aren't included
 here will be submitted to the DLNR chairperson or designated authority for
 approval prior to construction.
 - Annual reporting schedule
 - o By September 30
 - Annual reporting requirements
 - o Include status of:
 - compliance of the permit conditions, and
 - implementation of land uses pursuant to the approved management plan schedule
- 5. Any other information or data, as required by the department
 - o See attached Kapunakea Preserve 2010-2015 Long-Range Management Plan
 - See Draft EA for Kapunakea Preserve



Protecting nature. Preserving life.

The Nature Conservancy of Hawai'i Maui Field Office 81 Makawao Avenue, Suite 203A P.O. Box 1716 Makawao, HI 96768 tel (808) 572-7849 fax (808) 572-1375

www.nature.org/hawaii

February 24, 2009

Dawn T. Hegger
Senior Planner
State of Hawaii
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
Kalanimoku Building
1151 Punchbowl Street, Room 131
P.O. Box 621
Honolulu, Hawaii 96809-0621

2009 FEB 26 A 10: 25

NA ... TACES

Re:

Request for amended initation and completion period

Aloha Dawn,

We would like to request a modified permit condition regarding the initiation and completion period of the ongoing management of Kapunakea Preserve for our pending CDUA MA-3492. In your staff report to the BLNR, can you change one of the standard permit conditions to the following language? "That any construction to be done on the land shall be initiated within one (1) year of the approval of construction plan to be filed with the department and completed within twenty (20) years of the approval of the construction plan, subject to available funding for the construction. The applicant shall notify the department in writing when construction activity is initiated and when it is completed."

Our NAPP partnership agreement is indefinite in time period and renews every year so there is always six years remaining. Because there is no specific time end date for our on-going management at Kapunakea, we're seeking an ongoing approval for our identified land use. Our CDUP management plan states that our proposed action includes "long-term native habitat improvements at Kapunakea Preserve on West Maui as directed by BLNR-approved contiguous six-year Long-Range Management Plans (LRMPs) generated by the Natural Areas Partnership Program (NAPP)."

In addition, since the availability of funding is a key factor regarding the completion of our construction projects, we would similarly like to request that construction completion dates be conditional based on the availability of funds. This is especially true during these uncertain economic times.

The Nature Conservancy's Maui Office is excited to continue its ongoing management activities at Kapunakea Preserve on West Maui in conjunction with the State's Natural Areas Partnership Program (NAPP). We greatly appreciate your consideration of this request as you prepare your staff report.

Mahalo nui loa,

Mark L White

Director of Maui Programs
The Nature Conservancy

cc:

Stephanie Lu -TNC

File



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